

# **“The Right Stuff” PBL**

## **8<sup>th</sup> Grade Standards**

**Art Standards-** Students express creativity through designing their spaceship. Their artwork reflects on their context of their specific planets.

**Art Standard: AR.08.CP.01-** Select and combine essential elements and organizational principles to achieve a desired effect when creating, presenting and/or performing works of art.

**Language Arts Standards-** Students meet the standards of reading, vocabulary and writing. Students are reading while researching their planet, and making connections within the text and their group. Students also are learning new vocabulary and increasing their vocabulary knowledge by researching and learning about their planet. Writing Standards are also covered because students are learning to plan, evaluate and revise their work and final project.

### **Writing Standards:**

**EL.08.WR.01-** Use a variety of strategies to prepare for writing, such as brainstorming, making lists, mapping, outlining, grouping related ideas, using graphic organizers, and taking notes.

**EL.08.WR.02-** Discuss ideas for writing with classmates, teachers, and other writers, and develop drafts alone and collaboratively.

**EL.08.WR.03-** Identify audience and purpose.

**EL.08.WR.32-** Plan and conduct multiple-step information searches by using computer networks.

**EL.08.SL.04-** Use feedback, including both verbal and non-verbal cues to reconsider and modify the organizational structure and to rearrange words and sentences to clarify the meaning.

**EL.08.SL.12-** Interpret and evaluate the various ways in which visual image-makers (e.g., graphic artists, illustrators, news photographers, film makers) communicate information and affect impressions and opinions.

### **Vocabulary Standards:**

**EL.08.RE.12-** **Verify** the meaning of a word in its context, even when its meaning is not directly stated, through the use of definition, restatement, example, comparison, or contrast.

**EL.08.RE.08 -** Understand, learn, and use new vocabulary that is introduced and taught directly through informational text, literary text, and instruction across the subject areas.

**Reading Standards:**

**EL.08.RE.03-** Make connections to text, within text, and among texts across the subject areas.

**EL.08.RE.04-** Demonstrate listening comprehension of more complex text through class and/or small group interpretive discussions across the subject areas.

**Science Standards:** Since this is a science based project, students learn a great amount about science and all the different planets and how outer space and gravity work. Students are constructing and explaining how science is linked to everyday life, and how important it is to understand.

**Science Standards:**

**8.2E.1-** Explain how gravity is the force that keeps objects in the solar system in regular and predictable motion and describe the resulting phenomena. Explain the interactions that result in Earth's seasons.

**8.2E.4-** Analyze evidence for geologic, climatic, environmental, and life form changes over time.

**8.3S.2-** Organize, display, and analyze relevant data, construct an evidence-based explanation of the results of a scientific investigation, and communicate the conclusions including possible sources of error. Suggest new investigations based on analysis of results.

**8.3S.3-** Explain how scientific explanations and theories evolve as new information becomes available.

**8.4D.2-** Design, constructs, and test a proposed engineering design solution and collect relevant data. Evaluate a proposed design solution in terms of design and performance criteria, constraints, priorities, and trade-offs. Identify possible design improvements.

**Technology Standards:** Although there are not specific educational technology standards set for 8<sup>th</sup> grade students, working on the computer researching and working with a video or powerpoint gives the students the ability to use and learn technology.